

Date: Tuesday, 10/30/2007 2:48:35 PM
 User: Kim Johnston

Process Sheet

SPHIT-2

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : BLADE
 Job Number : 35435 -2
 Estimate Number : 10327
 P.O. Number :
 This Issue : 10/30/2007 S.O. No. :
 Prsht Rev. : NC
 First Issue : 11 Type : MACHINED PARTS
 Previous Run : 33083
 Written By :
 Checked & Approved By : 10/30/07 10 31
 Comment : Est Rev: D 00.11.15 Removed P/O turning - in house
 processEC
 Est Rev: E 06-03-20 As Per Rev C
 JLM
 Est Rev: F 06.04.20 Added grinding after heat treating E
 C

Part Number : D2741
 Drawing Number : D2741 REV C
 Project Number : N/A
 Drawing Revision : C
 Material :
 Due Date : 11/15/2007

Qty: 30
 40 Um: Each

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M4130NB0500X03000 4130 Bar 0.5 x 3.0"



Comment: Qty.: 1.2118 f(s)/Unit Total : 48.4722 f(s)
 .4130 BAR 0.5 x 3.0"
 Material: 4130 steel bar 0.50" x 3.00"

Batch: M 1025355 x 3375

~~M 1025355 x 3375~~

M 101314 x 475

M 1016274 x 275

2.0 BAND SAW BAND SAW



Comment: BAND SAW
 Cut blanks 13.850" long +0.063" -0.000"

JL 07/12/02

3.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1
 1-Machine per folio FA108

JL 07/12/02

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE

Job Number: 35435

Part Number: D2741

Job Number:



Seq. #:

Machine Or Operation:

Description :

4.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

3.1 04/12/12

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

2.5 04/12/03 (40)

6.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Debur

2-Bend per Dwg D2741

D 5.0 07/12/04
07/12/04 (40) SA 07-12-04 (40)

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

12/12/04 (40)

8.0

OUTSIDE SERV.30

OUTSIDE SERVICES-MACH



Comment: Sub-Contracting PURCHASING

Issue P/O: 5193

Harden material as per Dwg D2741

Min. Ultimate Tensile Strength = 152 ksi (30-40 HRC)

Min. Yield Tensile Strength = 141 ksi

Test report or Certification required

C 07/12/05

(40)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Receive and Inspect for transit damage

Ensure Test report or Certification attached

12/12/16 (40)

10.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/06/16 (40)

11.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Pass in deburring machine

2-Grind off edges

8-1-17

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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE

Job Number: 35435

Part Number: D2741

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

POWDER COATING

POWDER COATING



M106379



(30)

Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3

FL 08/01/17

13.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



(30)

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

PS BK 08-01-17

14.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: *ST466*

AS 08/01/18

(30)

15.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08-01-21

Job Completion



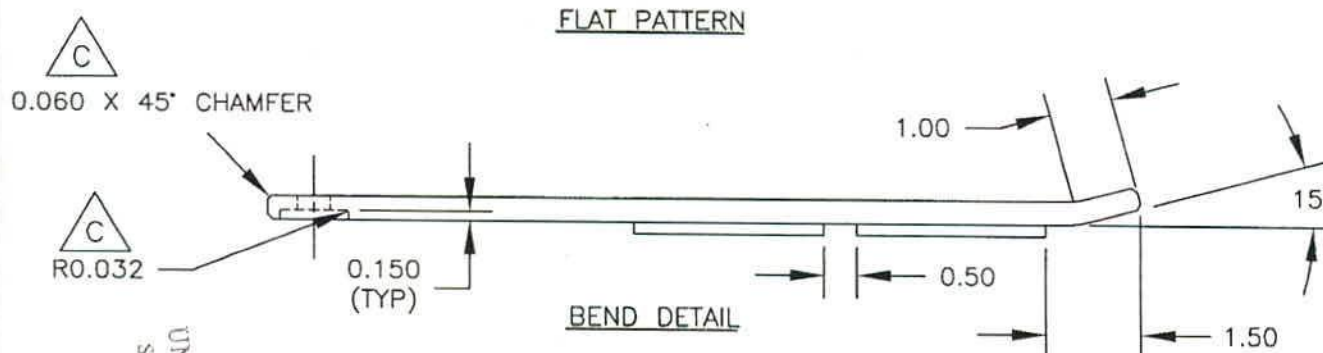
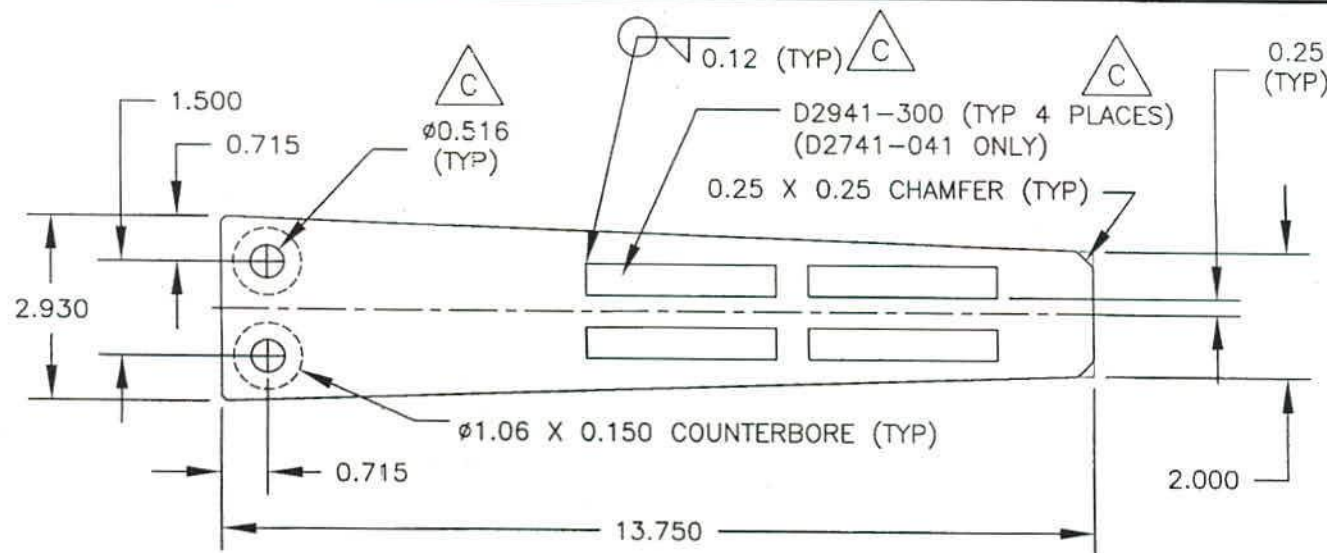
mini 2008/1/21

U

DART

RELEASED
06 02 07 11

DESIGN	DRAWN BY	DART AEROSPACE USA, INC.	
04	04	PORT HADLOCK, WA	
CHECKED	APPROVED	DRAWING NO.	REV. C
04	04	D2741	SHEET 1 OF 1
DATE	TITLE	SCALE	
06.01.12	BLADE	1:3	
A	98.04.16	NEW ISSUE	
B	98.09.01	CHANGE C'SINK TO C'BORE	
C	06.01.12	LARGER HOLE, ADD RADIUS AND CHAMFER ADD -041/-043 OPTIONS	



UNCONTROLLED COPY
ENGINEERING
RETURN TO
SHOP COPY
SUBJECT TO APPROVAL
WITHOUT NO.
WORK ORDER
35435
D2741 BLADE

- 1) MATERIAL: AISI 4130 STEEL 0.375 THICK
MIN. ULTIMATE TENSILE STRENGTH = 152 ksi (34-40 HRC)
MIN. YIELD TENSILE STRENGTH = 141 ksi
- 2) FINISH: POWDER COAT WHITE (REF. 4.3.5.2) PER DART QSI 005 4.3
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES 0.030 TO 0.060
- 6) TO MAKE D2741-041, WELD D2941-300 (4) AS SHOWN ABOVE.
REMOVE POWDER COAT FROM SURFACE OF D2941-300
- 7) TO MAKE D2741-043, WELD 7560 HARDCOAT ROD INSTEAD OF D2941-300



VAC AERO

INTERNATIONAL INC.

PACKING SLIP

OAK 93756-1



HEAD OFFICE
1371 SPEERS ROAD, OAKVILLE, ONTARIO
CANADA L6L 2X5
TEL: (905) 827-4171 FAX: (905) 827-7489



QUEBEC DIVISION
7450 RUE VÉRITÉ STREET, ST. LAURENT, QUÉBEC
CANADA H4S 1C5
TEL: (514) 334-4240 FAX: (514) 334-6269

GST No.: R105468102

01/15/2008

MM / DD / YYYY

PAGE: 1

BILL TO: 1DAR01
DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

SHIP TO: DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON

K6A 1K7

K6A 1K7

DATE SHIPPED	SHIP VIA	F.O.B.
01/15/2008		ORIGIN
CUSTOMER P/O No.	JOB No.	TERMS
00005193		COD

LN	PART NO	DESCRIPTION	UOM	QTY ORDERED	QTY SHIPPED	B/O QTY
01	D2741	B35435 BLADE Process Specifications: Procedure: 4161 HARDENED PER DWG. D2741 TO 152 KSI MINIMUM 100% HARDNESS TESTED PER ASTM E-18 HRC: 34-40 MATERIAL: 4130	EA	40	40	0
02	MC	MINIMUM CHARGE 140 LBS @ \$2.26/LB		1	1	0

No claims for shortage in weight or count will be entertained, unless presented within 5 working days after receipt of materials by customer.



VACUUM BRAZING - HEAT TREATING - SPECIAL PROCESSING - FURNACE EQUIPMENT
TURBINE COMPONENT OVERHAUL - PLASMA AND OTHER COATINGS



HEAT



VAC AERO
INTERNATIONAL INC.

RELEASE NOTE

GST No. : R105468102

OAK 93756-1



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1371 SPEERS ROAD, OAKVILLE, ONTARIO
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2009 WYECROFT ROAD, UNIT B
OAKVILLE, ONTARIO
CANADA L6L 6J4
TEL: (905) 827-7377 FAX: (905) 827-1380



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DATE SHIPPED	SHIP VIA	F.O.B.
01/15/2008		ORIGIN
CUSTOMER P/O No.	JOB No.	TERMS
00005193		COD

PART No.	DESCRIPTION	UOM	QTY ORD	QTY SHPD	TEST RESULTS
D2741	B35435 BLADE	EA	40	40	
<p>Process Specifications: Procedure: 4161 HARDENED PER DWG. D2741 TO 152 KSI MINIMUM 100% HARDNESS TESTED PER ASTM E-18 HRC: 34-40 MATERIAL: 4130</p>					
<div><div>100% HARDNESS TESTED 40 pcs. 38/39 HRC</div><div>OK</div><div>V.A.I.O. TH. 25 Q.C.</div></div>					

I hereby certify that the material covered by this release note has been inspected and tested and conforms to all specifications relevant thereto in accordance with the conditions of the contract / or purchase order.

ON BEHALF OF VAC AERO INTERNATIONAL INC.

Lama Robinson
Authorized Q.C. Inspector



VACUUM BRAZING - HEAT TREATING - SPECIAL PROCESSING - FURNACE EQUIPMENT
THERMAL COMPONENT OVERHAUL - P1 ASMA AND OTHER COATINGS



HEAT
TREATING